

ON A NEW SPECIES OF *CALLITRIS* FROM EASTERN AUSTRALIA.

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(Plate xlv.)

CALLITRIS GRACILIS, sp.nov.

A tree attaining a height of over 20 feet, with a diameter from 1 to 2 feet, and having a hard, compact, bark similar to that of other species of *Callitris*. Branchlets numerous and slender, having a bright green colour; internodes terete or with very obtuse angles, the leaf-scales or teeth small and acute.

Male amenta terminal, seldom axillary, solitary or only occasionally two together, 3 lines long and slightly exceeding the branchlets in diameter, cylindrical, oblong. Stamens in whorls of 3, imbricate in six vertical rows; apex scale-like, ovate or orbicular, concave, with 2 anthers (2-celled) at the base. Female amenta about 1 line in diameter, having 6 scales, solitary or 2 or 3 together, fairly numerous below the terminal drooping branchlets.

Fruit-cones large, solitary, globular or compressed globular, from 1 inch to $1\frac{1}{4}$ in diameter or even larger; valves 6, very thick, smooth or slightly rugose, furrowed at the junctions, the three larger ones broadest at the middle and then tapering upwards and very thick from the base to the middle, the smaller ones about one-half as wide as the larger and shorter in length; the dorsal point minute and close to the apex. Seeds dark-coloured, the wings varying in size and shape.

Hab.—New South Wales : Tal Tal Mtn., and Gowie Range, Bylong, near Rylstone (J. Dawson, L.S.).

This pine tree was first brought under my notice in 1893 by Mr. J. Dawson, L.S., of Rylstone, who discovered it at the localities above given. As I had, prior to this, collected four other species of *Callitris*, *i.e.*, *C. calcarata*, R.Br., *C. glauca*, R.Br., *C. cupressiformis*, Vent., and *C. Muelleri*, Parlat., in this district, in fact, close to where this species occurs, it was easily seen that its characteristic branchlets and fruit differentiate it from any of these. In the fineness of the branchlets it approaches *C. glauca*, R.Br., and *C. robusta*, R.Br., but it lacks the glaucousness so characteristic of the former species, and the tuberculate, valvate cones of the latter, and is always found at higher elevations than these, as it occurs on ridges or rocky mountains in company with *C. calcarata*, R.Br., which species, however, extends on both sides of the Coast Range and well into the interior, whilst this species so far has only been found on the eastern slopes. The terete branchlets differentiate it from *C. calcarata*, R.Br., and *C. Muelleri*, Parlat.; and the fruits from *C. glauca*, R.Br., *C. robusta*, R.Br., and *C. cupressiformis*, Vent. The fruits show a remarkable likeness to those of *C. Muelleri*, but the branchlets of the two bear no resemblance, and this remark applies equally well to *C. calcarata*, R.Br.

Concerning the other species of *Callitris* enumerated in the 'Index Kewensis,' the differences are too obvious to be mentioned.

Summarising its specific affinities and differences, it has terete (but finer and without the glaucous) branchlets similar to those of *C. glauca*, R.Br., and *C. robusta*, R.Br., and fruits identical with those of *C. Muelleri*. The long, fine, drooping branchlets occasionally give it a willow-like appearance.

In botanical sequence it should come, perhaps, between *C. robusta*, R.Br., and *C. Muelleri*, Parlat.

This *Callitris* so far appears to be very local, for after a rather exhaustive botanical survey of the Pines of this State undertaken by me it was not found in any other locality, and there is no

indication at present of any forms really transitional between it and any of the above-mentioned species, whilst it is distinct from any Western Australian *Callitris*.

EXPLANATION OF PLATE.

CALLITRIS GRACILIS, n.sp.

- Fig. 1.—Twig with branchlets and male amenta.
Fig. 2.—Individual branchlets (enlarged).
Fig. 3.—Male amenta (enlarged).
Fig. 4.—Stamen with anthers (enlarged).
Fig. 5.—Cones unexpanded (natural size).
Fig. 6.—Cones expanded.
Fig. 7.—Seeds (natural size).